

August 30, 2013

To: Executive Board

Subject: **Emergency Operations Plan**

Recommendation

Receive and file a report on Foothill Transit's Emergency Operations Plan.

Analysis

In addition to the personnel necessary to provide on-street service, Foothill Transit's day-to-day operations and administrative functions are dependent on, among other items, the reliable provision of utilities at a number of agency owned or leased facilities. This includes, but is not limited to, an adequate supply of diesel fuel and natural gas to fuel our coaches; reliable electricity and compressed natural gas (CNG) to power the CNG compression stations; and reliable electricity to power the Ecoliners on Line 291 and power the electrical and electronic equipment at both operating facilities and the administrative offices.

Of these utilities, some are categorized as critical to providing on-street service, while others are essential for administrative support.

Electricity:

- Arcadia operations and maintenance facility:
 - In the event of a power outage impacting the Arcadia operations and maintenance facility, there is a 1,000 gallon capacity diesel-fueled generator capable of providing power for 24 hours with a full diesel tank. This generator is configured to supply back-up power to certain areas within the administrative and maintenance sections of the facility as well as the diesel fueling station.
 - Of the 145 coaches at the Arcadia operations and maintenance facility 122 are CNG powered and when fully-fueled each has a range of 300 miles. This is sufficient to keep them in revenue service for a full day, should the electrical power to the CNG compressors at that location disrupt the supply of CNG.

A separate natural gas powered generator at the Arcadia operations and maintenance facility is capable of powering the CNG fueling.

- Pomona operations and maintenance facility:

- In the event of a power outage impacting the Pomona operations and maintenance facility, there is a (300 gallon capacity) diesel-fueled generator capable of providing power for 17 hours with a full diesel tank. This generator is configured to supply power to certain areas within the administrative and maintenance section of the facility.
- The Pomona operations and maintenance facility houses 166 CNG coaches. When fully-fueled each has a range of 300 miles. This is sufficient to keep them in revenue service for a full day, should the electrical power to the CNG compressors at that location disrupt the supply of CNG.

A separate natural gas powered generator at the Pomona operations and maintenance facility is capable of powering the CNG fueling station.

Below is a table outlining the fueling capability of Foothill Transit's two CNG stations.

| | Pomona | Arcadia |
|--|--|--------------------------------------|
| Primary Compressor Power | Electric | Electric |
| Primary Compressor(s) Fueling Capacity (GGE/hour) | 300 gallons per compressor x 8 compressors = 2400 GGE per Hour | 300 x 5 = 1500 GGE per hour |
| Primary Compressor(s) Fueling Capacity (Buses/hour) | 2400 / 50 (gallons per bus) = 48 buses per hour | 1500 / 50 = 30 buses per hour |
| Backup Compressor Power | Natural Gas | Natural Gas |
| Backup Compressor Fueling Capacity (GGE/hour) | Pomona has 8 Compressors and uses 6 | Arcadia has 5 compressors and uses 4 |
| Backup Compressor Fueling Capacity (Buses/hour) | Same as above | Same as above |

- Ecoliner:
 - In the event of a power outage impacting the Pomona Transit Center, the Ecoliners will not be able to be charged at that location and will need to return to the Pomona operations and maintenance facility.
 - If the power outage is localized at the Pomona Transit Center and does not impact Foothill Transit's Pomona operations and maintenance facility, Ecoliners can be slow-charged at that location to provide a reduced level of Ecoliner service. Reduced Ecoliner service can be supplemented with CNG powered coaches in the event of a disruption of the Ecoliner power supply.
 - If the power outage affects the Pomona Transit Center and Foothill Transit's operations and maintenance facility, the Ecoliners will not be able to provide service. A reduced level of service on Line 291 can be provided using Foothill Transit's fleet of spare CNG coaches.
 - Foothill Transit maintains a minimum fleet spare ratio of 15 percent. This spare ratio is necessary to both facilitate scheduled preventive maintenance and provide for a nominal number of coaches in the event those should be needed to replace buses that break down while in service. However, once Line 291 becomes fully electric, a disruption to the power supply at the Pomona Transit Center will negatively impact service on that line.
- West Covina administration building:
 - In the event of a power outage impacting the West Covina administration building, there are three natural gas-fueled generators capable of providing power as long as there is a supply of natural gas. The generators are configured to supply power to the agency's SMARTBus system; computer servers (along with the air conditioning unit in the server room); fire sprinkler pump system and the elevators in the building. The telephone system currently has an uninterruptible power supply (UPS) capable of powering the phone system for 30 minutes. Plans are underway to connect the phone system to the emergency generator so that in the event of an interruption to the power supply, the agency's phone system will be uninterrupted.

CNG

- Natural Gas Supply:
 - Foothill Transit's Arcadia and Pomona operations and maintenance facilities are both home to CNG-fueled coaches. Fueling for these coaches takes place at CNG stations at the Arcadia and Pomona operations and maintenance facilities.
 - It should be noted that in the event of a local disruption to the natural gas supply affecting one of our operating facilities, buses could be fueled at Foothill Transit's other operating facility.
 - In the event of a catastrophic disruption to the natural gas supply affecting both locations, coaches could be operated on a limited schedule - perhaps 20 percent of service supplied so that some level of "lifeline" service could be supplied for up to five days. Beyond that period, our ability to provide service would be dependent on obtaining fuel from a CNG station outside the region impacted by the catastrophic disruption.

These utilities and Foothill Transit's access to them can be impacted by natural or man-made disasters. The severity of these disasters will determine the level of service that can be provided each day and the number of days that level of service can be sustained.

On this month's Executive Board agenda is an item related to a Transit Mutual Assistance Compact (TransMAC). If approved, Foothill Transit will become a founding member of the compact, with the ability to reach out to other TransMAC members in the event of an emergency. Other founding members would include Los Angeles County Metropolitan Transportation Authority, Orange County Transportation Authority, SunLine Transit, Omnitrans, and Long Beach Transit.

In the event of a local or regional emergency impacting service delivery, customer communication is a vital element in ensuring that customers are served as effectively as possible. Customers may or may not be independently or immediately aware of issues impacting service. Those customers who are signed up to receive E-Notices will be notified of any modifications to their selected routes or pick-up and drop-off locations. Other customers can be notified by way of the Foothill Transit website and/or Foothill Transit's social media presence. Any customers calling the administrative offices or our Transit Stores will have access to up-to-date information regarding routes and schedules. In order to ensure this is possible, it is critical that Foothill Transit's ability to communicate with customers is maintained or quickly restored if disrupted.

Executive Board Meeting – 08/30/13
Emergency Operations Plan
Page 5

As stated earlier, the telephone system has a backup battery that is capable of keeping the phones operational for up to 30 minutes if the supply of electricity is disrupted. The emergency backup generator at the Foothill Transit administrative offices will soon be reconfigured to maintain indefinite telephone uptime in the event of a temporary power outage. Additionally, this past July the Executive Board authorized the procurement of a new phone system that has stand-alone capability in the event data communication between the administrative offices and the individual Transit *Stores* is disrupted. That new telephone system is currently being procured and will be installed in the coming months, ensuring that each Foothill Transit *Store* will maintain functionality should electricity at the administrative offices in West Covina be disrupted.

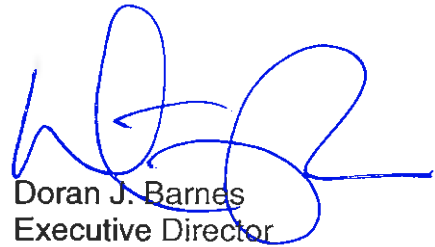
Financial Impact

This is an information item and as such there is no financial impact.

Sincerely,



Kevin McDonald
Deputy Executive Director



Doran J. Barnes
Executive Director